

Function Search

Introduction

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Function Search

Function Search is a way to search, browse and select functions in IMG. It can be accessed via the second-level menu of **Find Functions**, as shown in Figure 1.

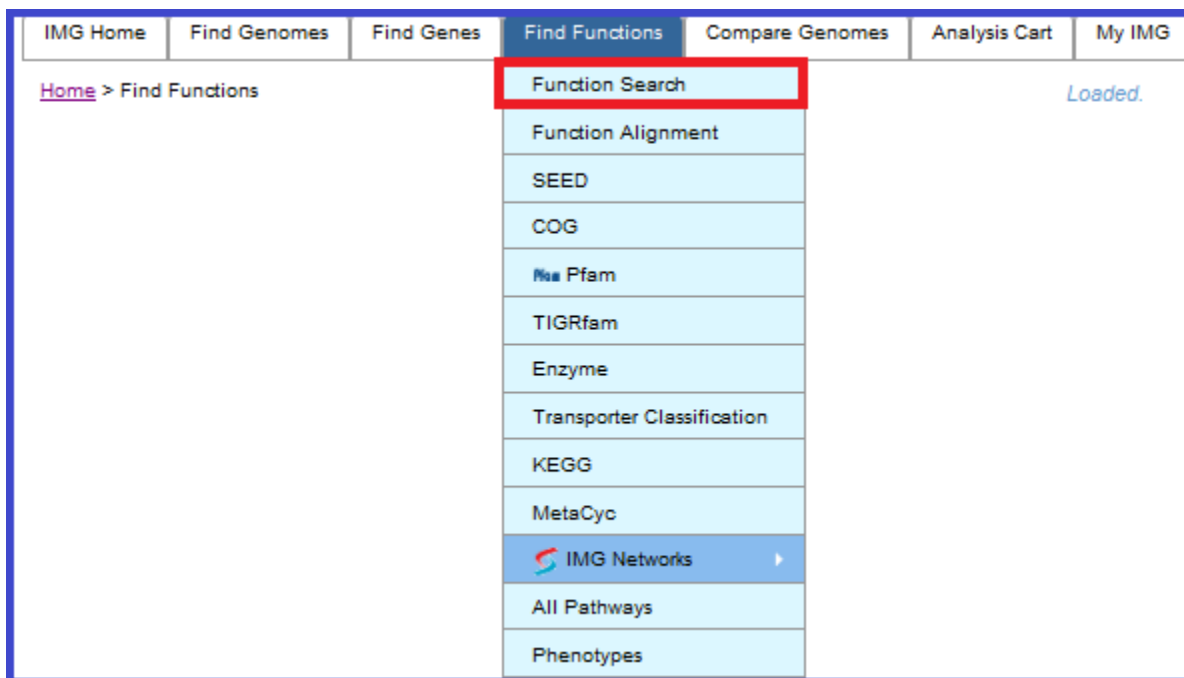


Figure 1: Access Function Search.

Keyword Search

The displayed page of **Function Search**, as shown in Figure 2, searches functions in selected genomes by keyword.

IMG Home Find Genomes Find Genes **Find Functions** Compare Genomes Analysis Cart My IMG Using IMG

Home > Find Functions Loaded.

Search Terms and Pathways

Find functions in selected genomes by keyword.

Keyword:

Filters: Gene Product Name

Genome Filter

Domains: (B)acteria, (A)rchaea, (E)ukarya, (P)lasmids, (V)iruses.
Genome Completion: [F]inished, [P]ermanent Draft, [D]raft.

Seq. Status: All Finished, Permanent Draft and Draft Domain: All

☒ List ☐ Tree

- Acidilobus saccharovorans 345-15 (A)[F]
- Acidilobus profundus boonei T469 (A)[D]
- Acidilobus profundus boonei T469 (A)[F]
- Aeropyrum pernix K1 (A)[F]
- Archaeoglobus fulgidus DSM 4304 (A)[F]
- Archaeoglobus profundus DSM 5631 (A)[F]
- Calditerrivibrio modestus IC-167 (A)[F]
- Candidatus Korarchaeum cryptofilum OPF8 (A)[F]
- Candidatus Methanoregula boonei 6A8 (A)[F]
- Cenarchaeum symbiosum A (A)[F]

Go Reset

Examples

- "kinase" as a Function Name may get "Shikimate kinase", etc.
- "EC:1.2.3.3" or "1.2.3.3" as an EC Number (exact) gets only genes associated with EC 1.2.3.3.
- "1.2.3" as an EC Number (inexact) returns genes associated with EC 1.2.3.3 and EC 1.1.2.3.
- "IPR004462" (exact) or "kinase" or "Acetylglutamate" (inexact) gets "IPR004462 Acetylglutamate kinase".
- "pfam00698" will retrieve that Pfam for Acl_trans_1.
- "TIGR02478" will retrieve that TIGRfam for 6-phosphotransferase.
- "lipid" return "Blood group glycolipid biosynthesis-lactoseries", "Lipid Metabolism" for KEGG Pathway search.
- (Try the "kinase" example or see the IMG Term and Pathway browsers for valid terms and pathways.)

Figure 2: Function Search.

A total of 20 search filters are available for selection, as shown in Figure 3: Function Search Filters.. The default filter is "Gene Product Name". User can also select filters such as:

Gene Product Name
SEED Product Name/Subsystem
SwissProt Product Name
GO (list)
COG (list)
Pfam (list)
TIGRfam (list)
InterPro (list)
EC Number (list)
EC Number or enzyme name (inexact)
Transporter Classification (list)
KEGG Pathway Enzymes
KEGG Orthology ID (list)
KEGG Orthology Name
KEGG Orthology Definition
MetaCyc (list)
IMG Term and Synonyms
IMG Pathways
IMG Parts List
*All function names**

Among them, “Transporter Classification (list)” and “MetaCyc (list)” are the newly added filters. They are included into the “All function names*” search too.

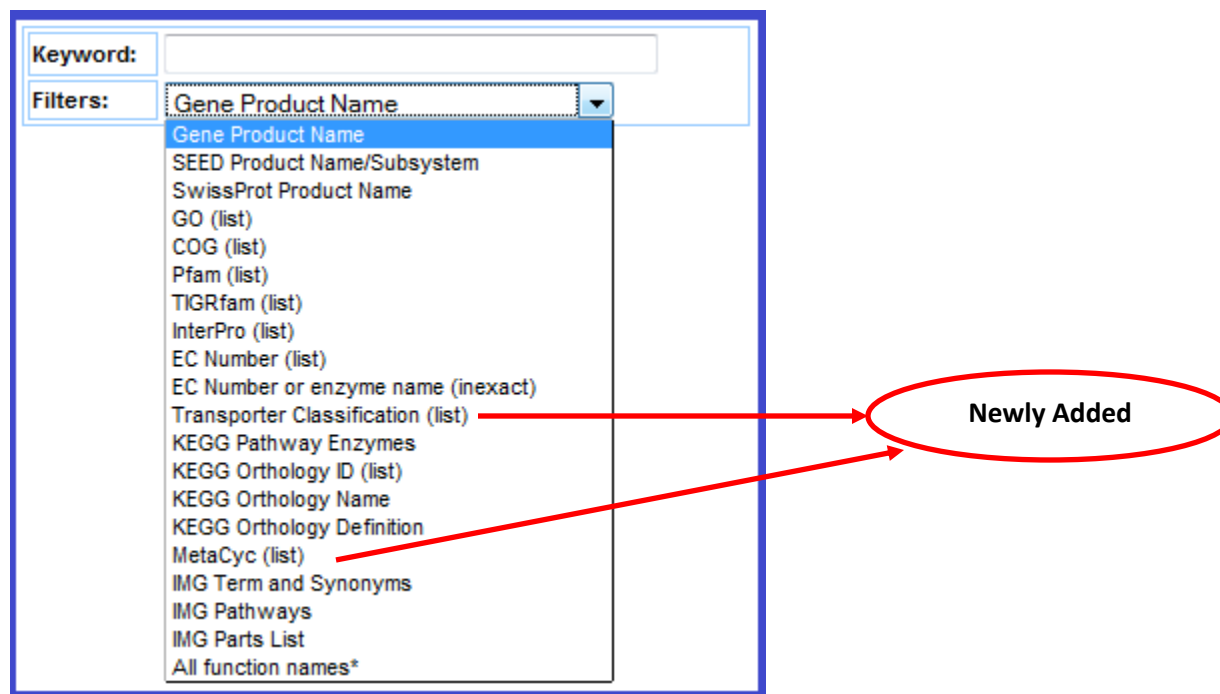


Figure 3: Function Search Filters.

Genome Filter

The Genome Filter is provided to limit the scope of search. The search is conducted on the genomes that user has saved through the **Genome Browser**. If user saves nothing, by default, it's all genomes in IMG database. However, user can override the selection via the **Genome Filter** provided in the page.

For more information about **Genome Filter**, go to “[Home > User Guide > Site Map](#)”.

Search Specifications

All searches are case-insensitive. The “list” search has to be separated by “,”.

User can use a percent sign (%) as a wildcard in the middle of a keyword. The results will include any genes with zero or more additional characters at that position. For example, “hydro%ase” in “Gene Product Name” will get results with “hydrolase” and “hydrogenase”, etc. If user wants only a single character of the keyword to be variable, type an underscore (_) in that position. Searching for “hydro_ase” will get results with “hydrolase,” not “hydrogenase.”

